

AMENDMENTS TO THE CLAIMS

1. (Withdrawn) An isolated DNA encoding a fusion protein comprising (a) an amino acid sequence comprising amino acid 42 to amino acid 60 of SEQ ID NO:2, and (b) a non-P selectin ligand amino acid sequence.
2. (Withdrawn) The DNA of claim 1, which further comprises an expression control sequence operably, linked to said nucleotide sequence.
3. (Withdrawn) A host cell transformed with the DNA of claim 2.
4. (Withdrawn) A process for producing a fusion protein, which comprises:
 - (a) culturing the host cell of claim 3 under condition suitable for expression of the fusion protein; and
 - (b) purifying the fusion protein from the culture medium.
5. (Withdrawn) The DNA of claim 1 wherein said first amino acid sequence comprises amino acid 42 to amino acid 402 of SEQ ID NO:2.
6. (Withdrawn) The DNA of claim 1 wherein said first amino acid sequence comprises amino acid 42 to amino acid 310 of SEQ ID NO:2.
7. (Withdrawn) The DNA of claim 1 wherein said first amino acid sequence comprises amino acid 42 to amino acid 88 of SEQ ID NO:2.
8. (Withdrawn) The DNA of claim 1 wherein said first amino acid sequence comprises amino acid 42 to amino acid 118 of SEQ ID NO:2.
9. (Withdrawn) The DNA of claim 1 wherein said first amino acid sequence comprises amino acid 42 to amino acid 189 of SEQ ID NO:2.

10. (Withdrawn) The DNA of claim 1 wherein said second amino acid sequence is linked to the C-terminus of said first amino acid sequence.
11. (Withdrawn) The DNA of claim 10 wherein said sequences are linked by a linking sequence.
12. (Withdrawn) The DNA of claim 1 wherein said second amino acid sequence is joined to the N-terminus of said first amino acid sequence.
13. (Withdrawn) The DNA of claim 12 wherein said sequences are linked by a linking sequence.
14. (Withdrawn) The DNA of claim 1 wherein said second amino acid sequence is derived from a protein chosen from an antibody, a cytokine, a growth factor, a differentiation factor, a hormone, an enzyme, a receptor or fragment thereof and a ligand.
15. (Withdrawn) The DNA of claim 14 wherein said second amino acid sequence is derived from the sequence of an antibody.
16. (Withdrawn) The DNA of claim 15 wherein said second amino acid sequence is derived from the Fc portion of an antibody.
17. (Withdrawn) The DNA of claim 15 wherein said second amino acid sequence is a mutation of a sequence derived from an antibody.
18. (Withdrawn) The DNA of claim 14 wherein said second amino acid sequence is derived from the sequence of a cytokine.
19. (Withdrawn) The DNA of claim 14 wherein said second amino acid sequence is derived from the sequence of a growth factor.

20. (Withdrawn) The DNA of claim 19 wherein said growth factor is a BMP.
- 21-28. (Canceled)
29. (Withdrawn) A fusion protein comprising (a) an amino acid sequence comprising amino acid 42 to amino acid 60 of SEQ ID NO:2, and (b) a non-P selectin ligand amino acid sequence.
30. (Withdrawn) The fusion protein of claim 29 wherein said first amino acid sequence comprises amino acid 42 to amino acid 402 of SEQ ID NO:2.
31. (Withdrawn) The fusion protein of claim 29 wherein said first amino acid sequence comprises amino acid 42 to amino acid 310 of SEQ ID NO:2.
32. (Withdrawn) The fusion protein of claim 29 wherein said first amino acid sequence comprises amino acid 42 to amino acid 88 of SEQ ID NO:2.
33. (Withdrawn) The fusion protein of claim 29 wherein said first amino acid sequence comprises amino acid 42 to amino acid 118 of SEQ ID NO:2.
34. (Withdrawn) The fusion protein of claim 29 wherein said first amino acid sequence comprises amino acid 42 to amino acid 189 of SEQ ID NO:2.
35. (Withdrawn) The fusion protein of claim 29 wherein said second amino acid sequence is linked to the C-terminus of said first amino acid sequence.
36. (Withdrawn) The fusion protein of claim 35 wherein said sequences are linked by a linking sequence.
37. (Withdrawn) The fusion protein of claim 29 wherein said second amino acid sequence is joined to the N-terminus of said first amino acid sequence.

38. (Withdrawn) The fusion protein of claim 37 wherein said sequences are linked by a linking sequence.

39. (Withdrawn) The fusion protein of claim 29 wherein said second amino acid sequence is derived from a protein chosen from an antibody, a cytokine, a growth factor, a differentiation factor, a hormone, an enzyme, a receptor or fragment thereof and a ligand.

40. (Withdrawn) The fusion protein of claim 39 wherein said second amino acid sequence is derived from the sequence of an antibody.

41. (Withdrawn) The fusion protein of claim 40 wherein said second amino acid sequence is derived from the Fc portion of an antibody.

42. (Withdrawn) The fusion protein of claim 40 wherein said second amino acid sequence is a mutation of a sequence derived from an antibody.

43. (Withdrawn) The fusion protein of claim 39 wherein said second amino acid sequence is derived from the sequence of a cytokine.

44. (Withdrawn) The fusion protein of claim 39 wherein said second amino acid sequence is derived from the sequence of a growth factor.

45. (Withdrawn) The fusion protein of claim 44 wherein said growth factor is a BMP.

46-53. (Canceled)

54. (Withdrawn) A fusion protein made according to the process of claim 4.

55. (Withdrawn) A composition comprising (a) a peptide comprising amino acid 42 to amino acid 60 of SEQ ID NO:2, and (b) a non-P-selectin ligand amino acid

sequence, wherein said first peptide and said second peptide are chemically linked by a moiety other than a peptide bond.

56. (Withdrawn) A method of identifying an inhibitor of selectin-mediated intercellular adhesion comprising:

- (a) combining a selectin protein with the fusion protein of claim 29, said combination forming a first binding mixture;
- (b) measuring the amount of binding between the selectin protein and the fusion protein in the first binding mixture;
- (c) combining a compound with the selectin protein and the fusion protein to form a second binding mixture;
- (d) measuring the amount of binding in the second binding mixture;
and
- (e) comparing the amount of binding in the first binding mixture with the amount of binding in the second binding mixture;

wherein the compound is capable of inhibiting selectin-mediated intercellular adhesion when a decrease in the amount of binding of the second binding mixture occurs.

57. (Withdrawn) A pharmaceutical composition comprising the fusion protein of claim 29 and a pharmaceutically acceptable carrier.

58. (Currently amended) A method of reducing ~~inflammation~~ leukocyte adherence in a subject having an inflammatory disease comprising administering to the

subject a therapeutically effective amount of a composition comprising a fusion protein comprising:

- (a) amino acid sequence comprising amino acid 42 to amino acid 60 of SEQ ID NO:2, and
- (b) a non-P selectin ligand amino acid sequence chosen from an antibody, an arabinogalactan protein, a bone morphogenic protein, and a cytokine.

59. (Previously presented) The method of claim 58, wherein said inflammatory disease is chosen from arthritis, gout, uveitis, acute respiratory distress syndrome, asthma, emphysema, delayed type hypersensitivity reaction, systemic lupus erythematosus, thermal burns, frostbite, autoimmune thyroiditis, experimental allergic encephalomyelitis, multiple sclerosis, multiple organ injury syndrome secondary to trauma, diabetes, Reynaud's syndrome, neutrophilic dermatosis, inflammatory bowel disease, Grave's disease, glomerulonephritis, gingivitis, periodontitis, hemolytic uremic syndrome, ulcerative colitis, Crohn's disease, necrotizing enterocolitis, granulocyte transfusion associated syndrome, and cytokine induced toxicity.

60. (Currently amended) A method of reducing ~~inflammation~~ leukocyte adherence in a subject by inhibiting selectin-mediated intercellular adhesion in the subject comprising administering to the subject a therapeutically effective amount of a fusion protein comprising:

- (a) an amino acid sequence comprising amino acid 42 to amino acid 60 of SEQ ID NO:2, and

- (b) a non-P selectin ligand amino acid sequence chosen from an antibody, an arabinogalactan protein, a bone morphogenic protein, and a cytokine.

61. (Previously Presented) The method of claim 60, wherein the subject has a condition chosen from myocardial infarction, bacterial infection, viral infection, metastasis, thrombotic disorder, parasitic disease, organ transplant rejection, arthritis, gout, uveitis, acute respiratory distress syndrome, asthma, emphysema, delayed type hypersensitivity reaction, systemic lupus erythematosus, thermal burns, frostbite, autoimmune thyroiditis, experimental allergic encephalomyelitis, multiple sclerosis, multiple organ injury syndrome secondary to trauma, diabetes, Reynaud's syndrome, neutrophilic dermatosis, inflammatory bowel disease, Grave's disease, glomerulonephritis, gingivitis, periodontitis, hemolytic uremic syndrome, ulcerative colitis, Crohn's disease, necrotizing enterocolitis, granulocyte transfusion associated syndrome, and cytokine induced toxicity.

62. (Previously Presented) The method of claim 60, wherein the subject is a hemodialysis or leukophoresis patient.

63. (Currently amended) A method of reducing inflammation leukocyte adherence in a subject having a condition characterized by selectin-mediated intercellular adhesion, comprising administering a therapeutically effective amount of a soluble P-selectin ligand protein, or a fragment thereof having P-selectin ligand activity, wherein the soluble P-selectin ligand protein or fragment comprises amino acid 42 to amino acid 60 of SEQ ID NO:2.

64. (Previously presented) The method of claim 63, wherein the P-selectin ligand protein or fragment comprises amino acid 42 to amino acid 88 of SEQ ID NO:2; amino acid 42 to amino acid 118 of SEQ ID NO:2; amino acid 42 to amino acid 189 of SEQ ID NO:2; amino acid 42 to amino acid 310 of SEQ ID NO:2; or amino acid 42 to amino acid 402 of SEQ ID NO:2.

65. (Previously presented) The method of claim 63, wherein the soluble P-selectin ligand protein, or a fragment thereof having P-selectin ligand activity, further comprises an Fc portion of an immunoglobulin.

66. (Previously presented) The method of claim 65, wherein the immunoglobulin is IgG.

67. (Previously presented) The method of claim 63, wherein the condition is chosen from myocardial infarction, bacterial infection, viral infection, metastasis, thrombotic disorder, parasitic disease, organ transplant rejection, hemodialysis, leukophoresis, arthritis, gout, uveitis, acute respiratory distress syndrome, asthma, emphysema, delayed type hypersensitivity reaction, systemic lupus erythematosus, thermal burns, frostbite, autoimmune thyroiditis, experimental allergic encephalomyelitis, multiple sclerosis, multiple organ injury syndrome secondary to trauma, diabetes, Reynaud's syndrome, neutrophilic dermatosis, inflammatory bowel disease, Grave's disease, glomerulonephritis, gingivitis, periodontitis, hemolytic uremic syndrome, ulcerative colitis, Crohn's disease, necrotizing enterocolitis, granulocyte transfusion associated syndrome, and cytokine induced toxicity.

68. (Currently amended) A method of reducing ~~inflammation~~ leukocyte adherence in a subject having myocardial infarction comprising administering to the subject a therapeutically effective amount of a composition comprising a soluble P-selectin ligand protein comprising amino acid 42 to amino acid 88 of SEQ ID NO:2.

69. (Currently amended) A method of reducing ~~inflammation~~ leukocyte adherence in a subject having a thrombotic disorder comprising administering to the subject a therapeutically effective amount of a composition comprising soluble P-selectin ligand protein comprising amino acid 42 to amino acid 88 of SEQ ID NO:2.

70. (Previously presented) The method of claim 58, wherein the inflammatory disease is multiple sclerosis.

71. (Previously presented) The method of claim 63, wherein the subject has multiple sclerosis.